ODOCKET NO.: ISIS-0025

PATENT 9-18-9/

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

Cook et al.

Serial No.: 566,977

Art Unit: 184

Filed: August 13, 1990

Examiner: D. Crouch

For: Sugar Modified Oligonucleotides That Detect And Modulate Gene Expression

Commissioner of Patents & Trademarks Washington, DC 20231

Sir:

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.99

Pursuant to the duty of disclosure set forth in 37 C.F.R. § 1.56, Applicant would like to bring to the attention of the Patent and Trademark Office the following additional publications which may be helpful in the examination of the above-identified patent application. All published documents are listed on the attached copy of Form PTO-1449, and a copy of each document is enclosed for the convenience of the Examiner.

U.S. Patent No. 4,689,320 (Kaji et al.) describes modes of administration of anti-viral oligonucleotides, for example, injections and suppositories. Mice infected with HSV-1 were injected intraperitoneally. Corneas of mice infected with HSV-1 were treated by drops containing oligonucleotide.

Zon et al., "Oligonucleotide Analogues as Potential

PTO-43

Chemotherapy Agents", Pharmaceutical Research, 5(9):539-549

(1988) disclose oligonucleotide-mediated protein inhibition using oligonucleoside methylphosphonates.

The invention set forth in the above-referenced application is believed to be patentable over the foregoing cited documents.

Respectfully submitted,

Date: September 5, 1991

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